SWEN90016

Software Processes & Project Management

Risk Management

2019 – Semester 1

Tutorial 8

Today's aim

Understand Risk Management

for Language Research project

That's interesting!

IBM (2008): 40% of IT projects meet schedule, budget, & quality goals

http://www-935.ibm.com/services/us/gbs/bus/pdf/gbe03100-usen-03-making-change-work.pdf

KPMG (2013): a third of the IT spend for an organization delivers the desired results

https://www.kpmg.com/NZ/en/IssuesAndInsights/ArticlesPublications/Documents/KPMG-Project-Management-Survey-2013.pdf

XDNET (2009): estimate that the cost of failed IT projects are as high as $6 Trillion worldwide

http://www.zdnet.com/blog/projectfailures/worldwide-cost-of-it-failure-6-2-trillion/7627

Have you been paying attention?

Risk Quiz

Answer the following **six** questions

Getting Started

1. Define Project Risk

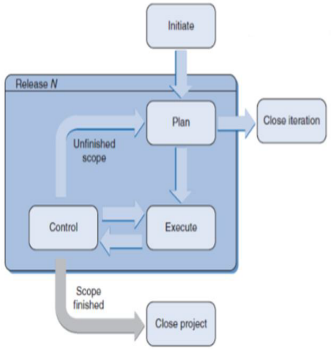
   PMBOK

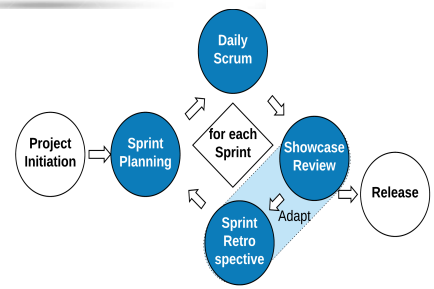
2. In what PM phase does Risk Management start?

   Risk Management

   From Lecture 8, slid 13

   http://blog.zilicus.com/software-project-management-activities-roles/





Risk Management example

For the Language Research Case Study

Some key characteristics are:

- data integration from several distributed resources in several different formats. One feature of the system is to resolve the differences between idiosyncratic data formats.

- sharing modules in a distributed environment, choose between a local installation which will generate multiple copies, or a central installation with remote access

- peer-to-peer control strategy

Identify: Brainstorm

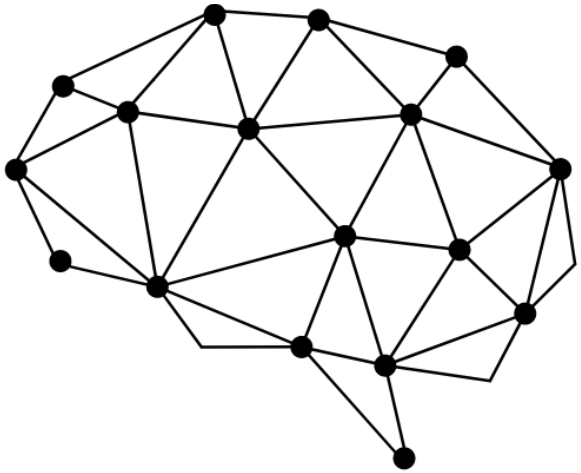
Brainstorm all risks for the project.

Nominate new ideas

No filter!

Analyze

Evaluate probability, impact & priority



Sift through all the risks in the project

Review and debate their importance

3. What are the top three/four risks to be controlled?

Document in a table.

Analyze: Risk Register

4. Create a risk register to document the controlled risks for your project

Id	Risk Description
Risk 1	
Risk 2`	
Risk 3	

Analyze

5. Calculate: probability impact exposure

Risk	Probability of Risk	Size of Loss (Days)	Risk Exposure (Days)
Risk 1		*the impact to the schedule if the risk did occur*	
Risk 2`			
Risk 3			

Risk probability = a measure between 0 and 1 inclusive

Risk impact = finite grade of 1-5 scale, such as:

(1) none; (2) minimal; (3) moderate; (4) severe; (5) catastrophic impact;

monetary cost or time cost?

Risk exposure = probability × impact

Analyze

5. Calculate: probability impact exposure

Risk	Probability of Risk	Size of Loss (Days) Out of 30 days total For 6 week project	Risk Exposure (Days)
Risk 1 –Flat priority causes ineffective automation	10%	5 days **Moderate - 3**	
Risk 2` Data security	5%	15 days **Severe - 4**	
Risk 3 – dev team delay	25%	2 days **Minimal - 2**	

Respond, Monitor & Control

Add Response strategy for handling threats & opportunities

Monitor Process

Lecture 8: slide 50

Agile Risk Process

Sprint Review risk evaluation

What
Where
Who
When
Why

- Build small piece of working software with minimal features
- Showcase the product chunk to the stakeholders **early**
- Fail **fast** and as cheaply as possible, & get timely feedback
- Capture the ***risk item*** in the Product Backlog
- The Product Owner sets the priority of the ***risk item***

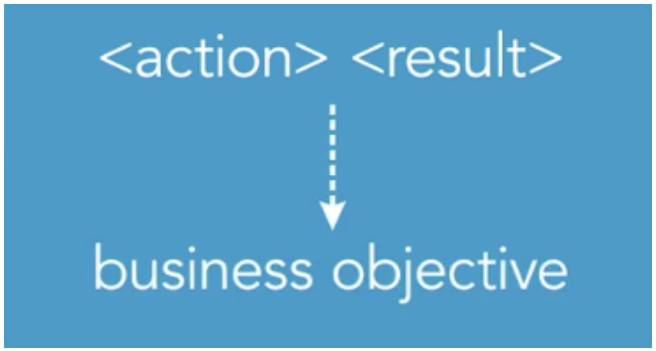
Refer to: Tutorial 5_procurment:Change Control, slide 20

Agile Risk Process

Sprint Review risk evaluation

- The format of a ***risk item*** in the Product Backlog can vary

- Optionally use Feature-Driven Development (**FDD**) syntax,
  (when the role is not obvious)



Example.
Risk 1: include request priority, for an effective booking service

www.mountaingoatsoftware.com/blog/not-everything-needs-to-be-a-user-story-using-fdd-features

Control

6 a. What are the key differences in characteristics between the Formal-incremental and Agile-iterative SDLC?

b. How would these characteristics influence risk management?

Thank You!